

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1.-103. (Cancelled)

104. (Currently Amended) An anastomosis system for connecting a tubular graft to a blood vessel comprising:

a catheter; and

a connector sized for delivery through the catheter, the connector comprising:

an annular structure configured for positioning within the tubular graft and for providing fluid communication between the tubular graft and the vessel, said annular structure having a longitudinal axis, and

at least one compressible member extending from a distal end of the annular structure and having a longitudinal axis substantially transverse to said longitudinal axis of said annular structure, the at least one compressible member having a first segment and a second segment,

the first segment being configured to engage a first portion of interior surface of the vessel wall,

the second segment being configured to engage a second portion of interior surface of the vessel wall, a distal end of the second segment being attached to a distal end of the first segment, and

the compressible member being radially deformable between a reduced profile and an expanded profile, wherein the compressible member is configured to provide fluid communication between the graft and the vessel when the compressible member is in the expanded profile.

105. (Previously Presented) The system of claim 104, the connector further comprising a plurality of additional compressible members, each of the additional compressible members being radially deformable between the reduced profile and the expanded profile.

106. (Cancelled)

107. (Previously Presented) The system of claim 104 wherein the compressible member expands from the reduced profile to the expanded profile upon removal of the catheter.

108. (Cancelled).

109. (Previously Presented) The system of claim 104 wherein the compressible member is radially self-expanding from the reduced profile and the expanded profile.

110. (Previously Presented) The system of claim 104 wherein the compressible member is comprised of a memory elastic material.

111. (Previously Presented) The system of claim 110 wherein the memory elastic material is selected from the group consisting of stainless steel, nickel titanium, and thermoset plastic.

112. (Previously Presented) The system of claim 104 wherein the expanded profile of the compressible member defines a radially enlarged profile.

113. (Previously Presented) The system of claim 112 wherein the radially enlarged profile is substantially circular.

114. (Previously Presented) The system of claim 104 wherein the expanded profile of the compressible member is configured to conform to and buttress the interior surface of the vessel wall.

115. (Previously Presented) The system of claim 104 wherein the first and second segments define a loop configuration.